



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,010	10/28/2003	Yuzo Hioki	244582US3	3721
22850	7590	08/26/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			VANAMAN, FRANK BENNETT	
			ART UNIT	PAPER NUMBER
			3618	

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/694,010

Applicant(s)

HIOKI, YUZO

Examiner

Frank Vanaman

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the front and rear wheels driven by a rear wheel axle (claim 1), and a motor being positioned above a central portion of the rear wheel axle (claim 3) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. As regards claim 3, it appears as though applicant may have intended to recite that the motor is disposed forwardly of a central portion of the rear wheel axle - note the inconsistency between the drawings and specification noted in the "Specification" section, below.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification *(see-over)*

3. The disclosure is objected to because it includes a number of grammatical informalities, such as: on page 1, lines 22-23, "it will be obliged for a driver to make up..."; on page 2, lines 2-3, "not so simple matter because of basic difference..."; on page 3, line 3, there appears a word missing between "at" and "substantially"; on page 3, line 22, "elongating the battery life"; on page 3, line 24, "makes narrow the width..."; on page 7, line 11, "buttery" should be - -battery- -. This is an exemplary listing only; the entire specification should be carefully reviewed and revised for minor grammatical errors.

4. The specification and drawings are inconsistent: page 7, lines 4-6 refers to the motor being disposed above the center of the rear wheel axle. The drawings show the motor as being located forwardly of the rear wheel axle (see figures 3, 4).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 recites that the front and rear wheels are driven via a rotation of a rear wheel axle, however the specification as filed (note page 6, line 19 through page 7, line 3) and the drawings both fail to disclose such a limitation.

6. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, line 2, it is not entirely clear which attributes of straddling are explicitly being claimed or not claimed by the recitation "straddle-type".

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3618

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamori (US 2002/0066606, published 6/6/02). Nakamori teaches a motor driven rough road vehicle (10) having front (14) and rear (16) wheels carrying wide width and low pressure balloon tires; a straddle seat (13), the rear wheels driven by a drive axle (17) connected with a gear case (proximate 17), the front wheels also connected for driving (through 24, 15) to rotate with the rear wheels and drive shaft, a battery unit (34) for providing power to a driving motor (35) which is connected with the gear case for driving the wheels; the battery unit being located within a space defined by a line connecting respective inner sides of the front and rear, right and left wheels, and the front and rear axles; the motor being positioned vertically higher than the rear wheel axle, as best understood. The reference to Nakamori fails to explicitly teach the provision of a controller. The provision of a controller for electrical management of a vehicle is very old and well known, and as such, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a controller connected between the battery and motor for the purpose of regulating the operation of the vehicle, under control of the operator. Inasmuch as the vehicle motor and battery are positioned closely proximate one another, it would have been obvious to one of ordinary skill in the art at the time of the invention to locate the controller closely proximate the motor and battery (within the region defined with respect to the vehicle wheels and axles) for the purpose of keeping power line lengths to a minimum.

9. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamori in view of Scaduto (US 5,686,818). The reference to Nakamori is discussed above and fails to teach the provision of a plurality of batteries arranged side-by-side, in a longitudinal direction of the vehicle, with the controller arranged at a front thereof. Scaduto teaches a vehicle wherein a plurality of batteries (1) are arranged in a longitudinal progression (figure 1) with a controller (2) at a forward end thereof. It would

Art Unit: 3618

have been obvious to one of ordinary skill in the art at the time of the invention to provide a plurality of batteries and forward-located controller to the vehicle taught by Nakamori, as suggested by Scaduto, for the purpose of (a) operating the vehicle motor at a higher voltage than may be had from a single battery and (b) locating the controller in a position which allows easy access for repair.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamori in view of Lamoreaux (US 4,655,307). The reference to Nakamori is discussed above and fails to teach a protection member located beneath the gear case. Lamoreaux teaches a protective cover (37) positioned so as to be beneath the operating components of a four-wheel, rough road vehicle (figures 1-3). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a protection member as taught by Lamoreaux under the vehicle taught by Nakamori, for the purpose of protecting the vehicle components from damage under use.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamori in view of Müller-Werth (US 4,277,737). The reference to Nakamori is discussed above and fails to teach the provision of a battery charger unit, located above the battery unit. Müller-Werth teach a vehicle power system wherein battery units (1, 2, 3) are provided with chargers (4, 5, 6). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide at least one battery charger unit as taught by Müller-Werth for the battery unit of the vehicle of Nakamori, for the purpose of controlling recharging of the Nakamori's battery. The references fail to specifically teach the charger unit as being located above the battery unit, however providing access to an electric component for ease of maintenance is old and well known, and as such, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the charger unit in a location above the battery unit so as to make it easily accessible for repair or replacement.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dignitti (US 6,186,256), Mita et al. (US 6,220,380), Hayashi (US

Art Unit: 3618

6,655,483), Roach (US 6,866,109), Nagura et al. (US 2002/0060100), and Rioux et al. (US 2002/0185325) teach vehicle structures of pertinence.

13. Any inquiry specifically concerning this communication or earlier communications from the examiner should be directed to F. Vanaman whose telephone number is 571-272-6701.

Any inquiries of a general nature or relating to the status of this application may be made through either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A response to this action should be mailed to:

Mail Stop _____
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450,

Or faxed to:

PTO Central Fax: 571-273-8300

F. VANAMAN
Primary Examiner
Art Unit 3618



8/23/05